

FABACEAE

A NEW SPECIES OF ACACIA (MIMOSOIDEAE) FROM MPUMALANGA, SOUTH AFRICA

INTRODUCTION

Botanically poorly explored areas of South Africa continue to yield exciting new plant discoveries and records (Hurter & Van Wyk 2001). During the course of fieldwork aimed at expanding the living plants collection of the Lowveld National Botanical Garden, Nelspruit, several potentially new species of *Acacia* have been collected for the first time, one of which is described in the present contribution. The new species is a yellow-flowered member of subgenus *Acacia* section *Acacia* subsection *Uniseriae* (Vassal 1974; Guinet & Vassal 1978; Chappill & Maslin 1995; Timberlake *et al.* 1999).

***Acacia ebutsiniorum* P.J.H.Hurter, sp. nov.**, a speciebus omnibus austro-africanis pedunculis longissimus (70–90 mm) robustis, foliolis cum margine hyalino differt. *A. antunesii* similis est sed habitu (suffrutex vel arbor parva ad 2.5 m alta, non arbor magna ad 6 m alta), foliis glabris, glandula petiolaris magna, crateriforme, leguminibus constrictis subfalcatis differt.

TYPE.—Mpumalanga, 2630 (Carolina): Ebutsini tribal land, Farm Tothiertoe 7 JT, 1 100 m, 8 November 2000, (–BB), P.J.H. Hurter 133 (PRE, holo.; K, NBG, PRU, iso.).

Small tree up to 2.5 m tall, trunk slender. *Bark* coarsely flaking or splitting to reveal a reddish or yellowish brown inner layer. *Branches* striate, ferruginous; new growth conspicuously striate, green, glutinous, lenticellate. *Stipules* in pairs, spinescent, 20–30 mm long, white, glabrous, slender, basally flattened, attenuate, pungent, antrorse, seldom arcuate, sometimes absent on new growth. *Leaves* fastigiate, shiny dark green, glabrous, glutinous when young, bipinnately compound, pulvinus vermilion at maturity; petiole sulcate, 5–15 mm long, with large, raised, crateriform, petiolar nectary gland; rachis sulcate, 20–90 mm long, with at least one nectary gland at junction of proximal and distal pinna pair; rachillae 3–6 pairs, distichous, 30–81 mm long, dotted with small dark glandular structures, with 8–16 leaflet pairs; leaflets distichous, narrowly elliptic, 6–15 × 2.4–3.0 mm, entire, eglandular, asymmetrical, apex mucronulate, base oblique, with conspicuous hyaline margin, midvein prominent on abaxial surface only, secondary veins not visible. *Inflorescences* capitate, globose, bright yellow, 10–22 mm diam., borne on new growth, fascicled on axillary peduncles; peduncle 70–90 mm long, glabrous or with few random, small dark glands, glutinous when young, often with shards of villose hairs; involucre bracteate, 1.0–2.2 mm long, 60–70 mm up the peduncle, 2 or 3 prominent, dark, gland-like tubercles usually present, remnants of a second involucre-like structure sometimes present ± 10 mm below flowers. *Flowers* bright yellow, dichlamydeous. *Bracteoles* clavate with apices covered by waxy globules. *Calyx* campanulate, pentamerous, glabrous, 1.0–2.1 mm long, ascending, usually with a few pustular waxy globules, apex crenulated. *Corolla* campanulate, pentamerous, membranaceous; lobes ± united, calceiform,

1.4–1.6 × 0.5–0.7 mm, ascending, edges and apex punctulate, usually with few pustular waxy globules. *Stamens* numerous; filaments 2–3 mm long. *Ovary* ventricose, septate, 1–2 mm long, surface with a few pustulate waxy globules; style 2–3 mm long. *Pods* dehiscent, complanate, eglandular, slightly falcate, 40–115 × 7–11 mm, 2–6-seeded, edges becoming constricted between seeds at maturity. *Seeds* elliptic, 6–9 × 4–7 mm, areole elliptic, 4–6 × 2–5 mm. Figure 10.

Diagnostic features and affinities: *Acacia ebutsiniorum* can immediately be distinguished from all other southern African yellow-flowered acacias, including *A. natalitia* E.Mey. and *A. karroo* Hayne, by its exceptionally long, 70–90 mm, peduncles and the distinct hyaline margin of the leaflets. The precise phylogenetic relationships of *A. ebutsiniorum* are obscure. Its constricted pods are vaguely reminiscent of those of *A. natalitia* (at times included under *A. karroo*) with which it occurs sympatrically. However, *E. ebutsiniorum* differs conspicuously from the latter in that its pods are much broader and more robust. Moreover, in the field it can readily be distinguished from *A. natalitia* by its much smaller stature and markedly glutinous new growth. *A. natalitia* tends to be a much bigger tree with the new growth never glutinous. Additional differences between these two species are provided by floret morphology. In *A. natalitia* the corolla lobes are fused into a short tube above the calyx, whereas in *A. ebutsiniorum* the lobes are much shorter and completely free.

Acacia ebutsiniorum superficially resembles *A. antunesii* Harms from the Huila Plateau of southern Angola in general appearance as well as shape and size of the leaves (Ross 1979). There are, however, marked differences in geographical distribution, plant size and morphology. Salient morphological differences between the two species are given in Table 1.

Distribution and habitat: at present *A. ebutsiniorum* is known from a single gregarious population at an altitude of 1 140 m in a mountainous area northeast of Oshoek.

TABLE 1.—Differences between *Acacia ebutsiniorum* and *A. antunesii*

	<i>A. ebutsiniorum</i>	<i>A. antunesii</i> according to Ross (1979)
Distribution	eastern South Africa	south-central Angola
Habit	shrub or small tree up to 2.5 m	tree up to 6 m
Leaf surface	glabrous, shiny	with dense grey indumentum
Petiolar gland	large, crateriform	usually absent; if present, small
No. leaflets	8–16 pairs	11–19 pairs
Leaflet margin	distinctly hyaline	not distinctly hyaline, often ciliate
Calyx lobes	apex crenulate, punctulate	apex truncate, hairy
Corolla lobes	margin punctulate	margin hairy
Pods	slightly falcate, constricted	straight, not constricted

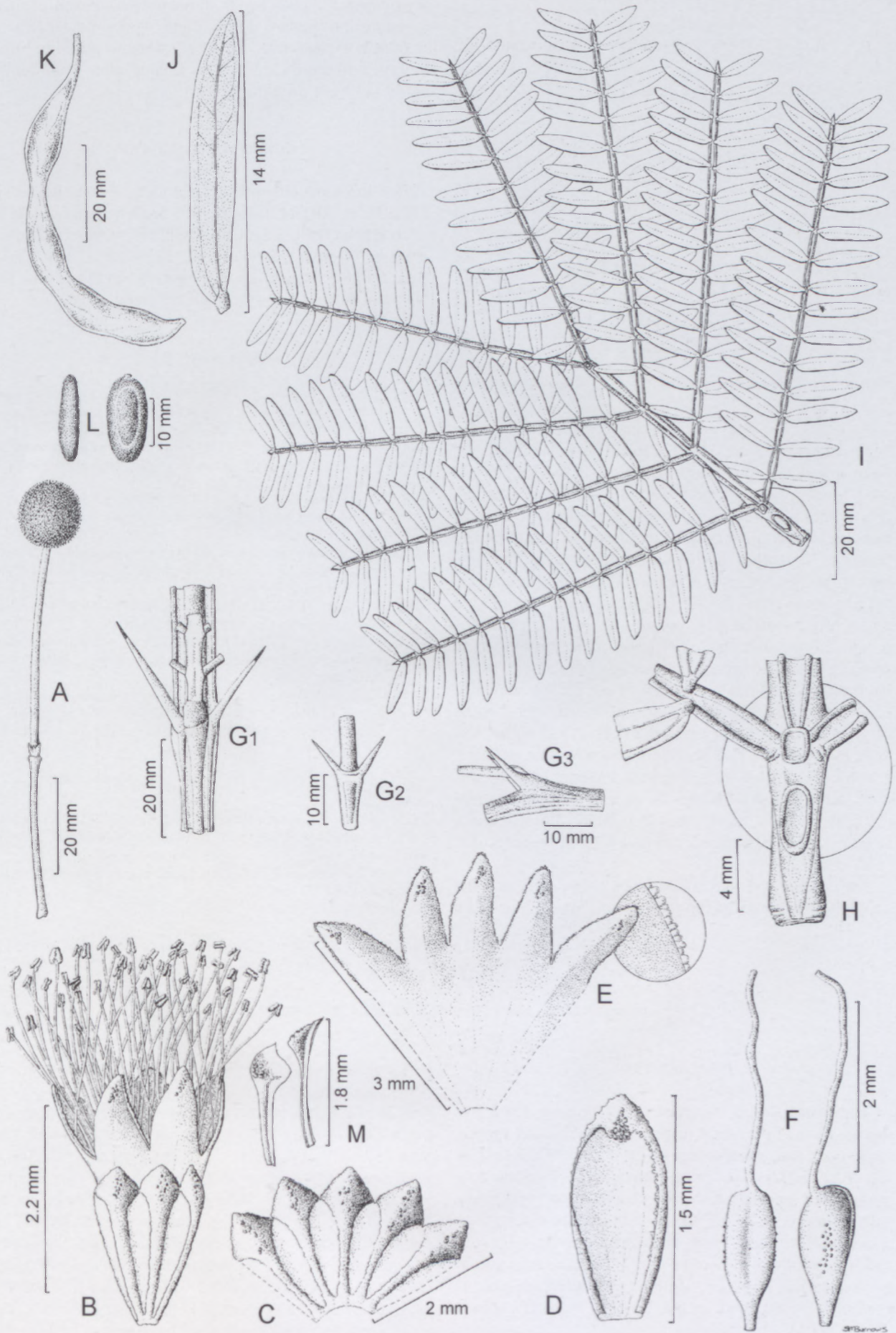


FIGURE 10.—*Acacia ebutsiniyorum* P.J.H. Hurter. A, flower head; B, individual flower; C, calyx. D, calyx lobe; E, corolla; F, gynoeceium; G₁–G₃, stipules; H, petiole; I, leaf; J, leaflet; K, pod; L, seed; M, bracteole. Scale bars: A, G₁, I, K, 20 mm; J, 14 mm; G₂, G₃, L, 10 mm; H, 4 mm; E, 3 mm; B, 2.2 mm; C, F, 2 mm; D, 1.5 mm, M, 1.8 mm. Drawn from P.J.H. Hurter 133 spirit collection in PRU, by S. Burrows.

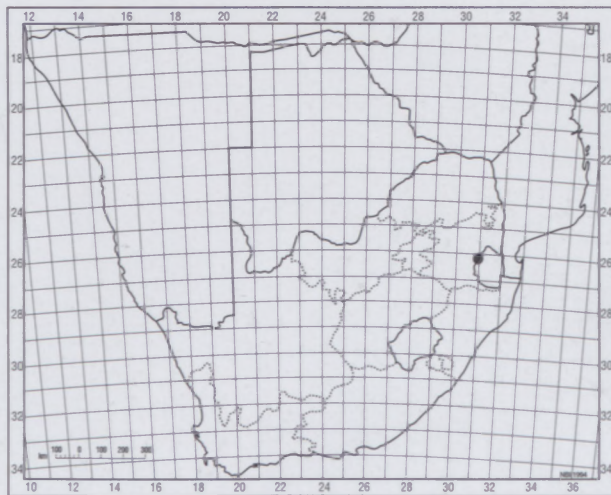


FIGURE 11.—Known distribution of *Acacia ebutsiniorum* in South Africa.

Mpumalanga (Figure 11). The plants grow in exposed, open grassland on a steep, southeast-facing slope, and are periodically subjected to fire. *A. ebutsiniorum* shares this habitat with several other newly discovered and still to be described plant taxa, all confined to its immediate vicinity. No earlier herbarium collections of the new species are known, which is hardly surprising considering the remoteness of the locality and the unique and apparently localized plant community of which it forms a part. It is possible that other populations might exist in seemingly similar habitats to the east of the present locality, but this could not yet be confirmed. The known range of the new species seems to fall just inside a local focus of plant endemism known as the Barberton Centre (Van Wyk & Smith 2001). This region is known for its many edaphic specialists, including taxa endemic to serpentine-derived soils. Although the precise geological identity of the rocks at the *A. ebutsiniorum* locality still needs to be established, it appears to be a type of serpentinite.

Etymology: the specific epithet commemorates the people of the Swazi-speaking Ebutsini Tribe living in the

area where the trees occur, in acknowledgement of their generous hospitality during field work and wealth of field knowledge they so freely shared with the first author; without their help this unique plant community could not have been discovered.

ACKNOWLEDGEMENTS

We are indebted to the curators of GRA, K, NBG, PRE, PRU, SRGH for access to their herbaria, Dr H.F. Glen for the Latin diagnosis, Sandie Burrows for the line drawing, Gerhard Strydom of the Mpumalanga Parks Board for assistance in the field, SABONET and the National Botanical Institute for financial assistance.

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MS. received: 2003-02-26.